

**MONTANA FISH, WILDLIFE AND PARKS
DRAFT PROGRAMMATIC ENVIRONMENTAL ASSESSMENT (EA)**

**CITY OF HELENA URBAN DEER MANAGEMENT PLAN
September 2009**

I. INTRODUCTION AND BACKGROUND

In 2007, the City of Helena's Urban Wildlife Task Force developed an Urban Deer Management Plan. The Task Force confirmed the findings of the Plan that the predominate urban wildlife problem in the City of Helena was an overpopulation of mule deer due to the ample forage, water, and general habitat conditions. After extensive meetings that included city officials, members of the public, and wildlife specialists who reviewed existing urban wildlife plans, the Task Force presented its recommendations to the City Commission. This Plan was adopted by the City Commission and included the following actions to address increasing public health and safety, real and personal property damage, and wildlife welfare: 1) public education, 2) review of zoning ordinances and laws, 3) promotion of deer resistant landscaping and barriers, and 4) reduction of the existing mule deer population from within the city limits. The deer reduction plan proposed an initial removal of 350 deer to reduce the resident population's growth rate. The recommended deer population density for the City was 25 deer/mi² based on information from other cities that have established an urban deer density objective. As reported in the City of Helena's 2007 Urban Deer Management Plan, the deer density as of 2007 was estimated at an average 33 deer/mi² throughout the city.

In early September 2008, the City initiated their deer reduction plan with the approval of the Montana Fish, Wildlife and Parks' (FWP) Commission. This pilot project to remove 50 deer was completed by the end of October 2008, and the project was considered a success. Over 1,500 lbs of venison were donated to Helena Food Share, and knowledge and experience were gained for improving traps, adjusting the trapping schedule, and reducing potential injuries to staff involved in trapping.

A second effort for the removal of 150 additional deer was approved by the FWP Commission in December 2008 and completed in March 2009. This effort was also considered a success based on the efficiency of the program, comments the City received from those volunteering their property for traps, and from Helena Food Share for the donation of approximately 5,000 pounds of venison for their clients.

II. DESCRIPTION OF PROPOSED ACTION

Proposed Action

FWP proposes to approve the City of Helena's continuing efforts to reduce the urban deer population under the guidance of the City's 2007 Urban Deer Management Plan and contemporary deer population information. This would include the removal of 150 deer during the 2009-2010 fall/winter seasons and subsequent reduction activities by the City until the target population density is reached.

The Commission's approval would be effective from November 13, 2009, through December 31, 2019, or until changes to the City's plan requires re-evaluation and re-approval by FWP's Commission.

On an annual basis as urban deer management continues, the City would be expected to provide FWP: 1) a summary of recent efforts to reduce the urban deer population, 2) a summary of recent public education and outreach efforts and other relevant information or concerns, 3) the culling objective/management action(s), with justifications, that would be implemented to reach targeted goals for the upcoming year, and 4) the results anticipated of those management action(s).

Need

Conditions within the City such as ample forage and water, limited predator stress, and abundant cover have created conditions to sustain deer at a relatively high density. Between November 2006 and mid-January 2007, an inventory of the mule deer population within the city limits was completed. Based on that inventory, it was projected that there were about 700 mule deer ranging from densities in survey districts of 9 to 82 deer/mi² in Helena at the end of 2007. Based on birth and death rates used in the plan, it was projected that the population would exceed 1,800 deer by 2010 if no action were taken immediately. Based on the research completed by the City of Helena, the desired urban deer density was 25 deer/mi² which is equivalent to a population of about 380 deer within the city limits.

While the urban habitat may be able to support more deer than currently exist in the city limits, according to the survey conducted by the Urban Deer Task Force, the social tolerance for deer in the city has been exceeded. Tolerance for urban deer by human residents of Helena has declined due to both the damage deer cause to private property and the public safety hazards that increase with increased densities of deer. These public safety hazards include deer-vehicular collisions, direct deer-human conflicts between does, bucks, adults and children, and deer-pet conflicts. Public health issues focus on the increasing amount of deer feces in areas where children play and spread of ticks from deer.

The Helena Police Department and FWP administrative and parks staff, wildlife biologists, and game wardens currently respond to incidents involving dead or injured mule deer and other deer-human and deer-pet conflicts. In the years preceding the 2008 pilot project, both agencies had seen a steady increase in the number of reports of both dead and injured urban mule deer and deer-human/pet conflicts. The Police Department, game wardens, and biologist responded to over 400 deer related calls in 2006. Since the completion of the first two phases of the City's plan, the total number of calls to the agencies increased to an average of 455 in 2007 and 2008. The actual number of calls has increased for the Police Department, but the number of calls to FWP staff has decreased.

Summary of the Current Deer Population Management Action

With the technical assistance from the FWP biologist and game wardens, the City of Helena would continue to use the Police Department to set clover traps on private property in portions of the city that are frequently used by mule deer. Clover traps are made with a pipe frame and are enclosed with 4-6 inch mesh netting. A trip wire is attached to a trigger

mechanism which causes a door to close behind the animal. These traps have been reinforced with heavier frames and netting to reduce equipment failure and animal escapes. Traps would be baited with a mixture of grains and apples or another attractant and would be set during evening and checked in the morning by Police Department Staff. After capture in the trap, the deer would be further restricted and dispatched using a bolt gun. After the carcass is removed, the site would be cleaned with water or other means to maintain aesthetic values of the site. Carcasses would be moved to FWP facilities to be field dressed and would be stored there. When five or more animals are in storage, carcasses would be taken to a local meat processor for processing. After processing, the meat would be donated to community food banks for distribution to local families in need of assistance.

Deer reduction efforts are expected to continue to be implemented during the late fall and winter seasons. Conducting the deer removal efforts during this time of year decreases the chance for antlered deer-related injuries to Police staff, reduces damage to private property (landscaping) where the traps are placed, and provides a stable ground to secure the traps to. Furthermore, when the temperatures are cooler, deer are more active and in search of forage.

Summary of Other Strategies

In addition to reducing the number of deer in Helena, the City has proposed additional non-lethal strategies to decrease public health and safety risks and deer-human conflicts. The two programs that have been implemented are outreach/education and ordinances. Outreach and education included printed materials illuminating the illegality and adverse consequences of providing supplemental feed and the risk of attracting increased predator populations, landscaping choices, and deer repellents for sensitive plants. In 2005, the City of Helena Commission passed city Ordinance #3046 that prohibits the feeding of deer within the city limits. Furthermore, Montana law 87-3-130 states a person may not provide supplemental feed attractants to game animals.

Other population management options that were recommended by the City of Helena's Urban Wildlife Task Force but that have not been implemented yet are aversive conditioning, fertility/sterilization, professional wildlife removal using bait sites and stationary marksmen, and certified public hunting. To date, these methods have not been implemented because of high costs, anticipated controversy levels, and/or low effectiveness.

The Task Force evaluated capture and transfer as another option but did not recommend this option. Capture and transfer was not, and will not be, supported by FWP as an option because it is very stressful to the animal and results in high mortality rates during capture (0-25%), translocation (48%), and following release (43-85%) (Michigan Department of Natural Resources Wildlife Issue Review Paper 9, 2000). High mortality in translocated deer has been attributed to capture myopathy, unfamiliarity with the release site/area, wide dispersal from the release area, inability to locate deeryards, and encounters with new causes of mortality including predators, hunters, and automobiles (Michigan Department of Natural Resources Wildlife Issue Review Paper 9, 2000). Additionally, this option is labor intensive having a high cost, potential for disease and parasite transmission (e.g., chronic wasting disease, tuberculosis), and deer often have difficulty transitioning into the wild.

Costs to FWP

Anticipated costs to FWP are minimal because FWP staff would only be providing technical assistance, if required. The City has experience from both phases of the pilot project. As with the two phases of the pilot project, FWP would donate the use of an agency vehicle for transporting carcasses from capture sites to FWP's storage cooler and from storage to the meat processor. The City would pay for all gas expenses while using the vehicle and would pay for electricity while using the cooler.

III. LOCATION OF PROJECT

The City of Helena's efforts would be implemented within the city limits where deer population densities are greater than the targeted density and where public safety problems arise. Capture sites would be on private property at the invitation of the landowner or on public lands where deer often congregate.

IV. DESCRIPTION OF REASONABLE ALTERNATIVES TO THE PROPOSED ACTION

1. Alternative A, No Action: No Approval for the City of Helena to Continue the Implementation of its Urban Deer Management Plan to Reduce the Urban Deer Population

FWP does not approve the City's plans for its continuing efforts to reduce the City of Helena's urban deer population under the guidance of the City's 2007 Urban Deer Management Plan and decides not to take any additional action at this time. The City would be unable to implement any further deer removal efforts until FWP approval was received. The City could continue implementing other elements of their management plan, such as outreach and education, without the Commission's approval.

2. Alternative B, Approval with Conditions: FWP Commission Approves the Continued Implementation of the City of Helena's Urban Deer Management Plan

FWP approves the City's plans for its continuing efforts to reduce the City of Helena's urban deer population under the guidance of the City's 2007 Urban Deer Management Plan but requires the City to complete a survey of the urban deer population before continuing with additional removals as described in the Proposed Action alternative.

V. AUTHORITY AND DIRECTION

Montana Fish, Wildlife, & Parks, under 87-1-201 of the Montana Code Annotated (MCA), has the authority to “*supervise all the wildlife, fish, game, and nongame birds, waterfowl, and game and fur-bearing animals of the state and may implement voluntary programs ...*”

Specifically, as for FWP authority for granting permission to the City to implement their plan, 7-3-1105 2(a) MCA states: *A city or town may adopt a plan to control, remove, and restrict game animals, as defined in 87-2-101, within the boundaries of the city or town limits for the public health and public safety purposes. Upon adoption of a plan, the city or town shall notify the Department of Fish, Wildlife, and Parks of the plan. If the Department of Fish, Wildlife, and Parks approves the plan or approves the plan with conditions, the city or town may implement the plan as approved or as approved with conditions.*

FWP has the authority per 87-1-226 MCA to distribute the meat to state institutions, school lunch programs, the department of public health and human services, or charitable institutions, which would be the case if the City implements their deer reduction plan.

VI. EVALUATION OF IMPACTS ON THE PHYSICAL ENVIRONMENT

1. Land Resources

Impacts of the Proposed Action: FWP Commission approval of the City of Helena's continuing efforts to manage urban deer population would not result in any direct impacts to land resources.

As with the previous two phases of the implementation of the City's plan, the capture and dispatch process would have minimal ground disturbing activities because deer removal activities would likely occur during the winter or late fall when the ground is frozen and potentially snow covered (traps are staked to the ground). No unique geological or surface features are expected to be disturbed on private or City owned properties where the traps would be placed.

If the City decided to put into action one of the other recommended strategies (aversive conditioning, fertility/sterilization, professional removal or certified public hunting), no impacts to land resources are anticipated because all of those strategies do not require any ground disturbing activities for their implementation.

Impacts of the No Action: The status quo would be maintained on private property within the City limits. No changes are expected.

2. Vegetation Resources

Impacts of the Proposed Action: There is no impact associated with the decision to approve the continuance of Urban Deer Management Plan from the City of Helena.

Indirect impacts for the Proposed Action: The use of Clover traps for the capture of the mule deer would not require the displacement of any trees or shrubs. Since the City has learned from the previous two phases that late fall and winter are the best seasons for removals, the ground vegetation where the

traps would be located would be dormant, possibly covered by snow, and frozen where the capture activities would occur. Therefore, damage to ground vegetation is expected to be minimal. This impact would be short term and not require the reseeding of the area after the proposed action is completed because the vegetation is expected to return to its normal state during spring growth.

If the City decided to put into action one of the other recommended strategies (aversive conditioning, fertility/sterilization, professional removal or certified public hunting), no impacts to vegetation are anticipated because all of those strategies do not require any disturbances to vegetation for their implementation.

Impacts of the No Action: Disturbances to the existing trees, shrub, and ground vegetation during the winter season would continue to occur by the existing urban deer population on private and public property.

3. Wildlife Resources

Impacts of the Proposed Action: If FWP were to approve the continuing implementation of the City's deer reduction plan, the City would have the ability to remove additional mule deer within the city limits through capture and dispatch process which would likely cause some localized changes to the distribution and abundance of mule deer. However, mule deer concentrations could still be plentiful in some other parts of the city and beyond the city's limits. Capturing and euthanizing deer may have diminishing returns if deer become wary of traps. Urban deer management would need to be continued indefinitely to manage urban deer under the guidelines of the Urban Deer Task Force Plan, and management may include any of the options discussed here either as stand-alone methods or in tandem.

If the City decided to put into action one of the other recommended strategies (aversive conditioning, fertility/sterilization, professional removal or certified public hunting), the desired effect is for the urban deer population to decrease. Below is an analysis of each of these strategies as they are presented in the City's Plan:

- 1) Aversive conditioning seeks to change urbanized deer behavior to become more wary of humans. Deer would be color marked by trained and certified individuals to denote the deer's location within the city. This option would help the City understand deer movements but would not actively work to reduce the deer population. This tactic may make some deer more wary of humans, but many more deer may continue their human-tolerant behaviors and human-deer conflicts would continue.
- 2) Fertility/sterilization seeks to reduce the reproductive rate of existing deer by administering a contraceptive to does or by surgically sterilizing does. As noted in the City's plan, as of 2007 most of the

fertility controls were still experimental and unproven. However, this strategy may be a viable option in the future when contraceptive treatments are proven and approved by the U.S. Environmental Protection Agency. Given that the effectiveness of current contraceptives is low, it is unlikely that this strategy would reduce the deer population. However, if the population were reduced via other means and if the effectiveness of contraceptives increased, this strategy may be appropriate, as a stand-alone option or in tandem with other methods, for maintaining the targeted density of deer. Does would need to be captured to administer the contraceptives or to be sterilized, which is stressful to them. Additionally, treated does would need to be marked somehow to identify them from does yet to be handled.

- 3) Professional wildlife removal using bait sites and stationary marksmen would require that the City hire certified contractors to remove deer or train the police department to systematically cull deer from the population in the city. Public safety would be ensured before this effort was implemented. As with the capture and dispatch method, the meat would be processed and donated to local food banks. This strategy could quickly reduce the urban deer population.
- 4) Certified public hunting would require that the city hire a contractor to train hunters to remove deer over stationary bait sites. It is unlikely that this strategy would reduce the deer population. If the population were reduced via other means, this strategy may be appropriate, as a stand-alone option or in tandem with other methods, for maintaining the targeted density of deer. The meat would either be kept by participating hunters or donated to local food banks.

No other wildlife species would be affected by the proposed action.

Impacts of the No Action: If FWP decides not to approve continued implementation of the City's deer management plan, it is predicted that the population of mule deer may increase to more than 1,800 animals by 2010 based on reproduction and mortality estimates used in the 2007 plan.

A likely direct consequence of the City's inability to take action early in the deer population increase is the probable rise in the number of complaints filed by residents concerning damage caused by deer, human-deer conflicts involving public safety, and deer-vehicle collisions. A cascading affect would include an increased workload to Helena police personnel and FWP administrative and parks staff, wildlife biologists, and game wardens, and associated costs of responding to injured, dead, and nuisance deer calls.

VII. EVALUATION OF IMPACTS ON THE HUMAN ENVIRONMENT

1. Noise Effects

Impacts of the Proposed Action: The FWP decision to approve the proposed action would have no impacts the existing conditions. To decrease any noise from the capture and dispatch method, the City has chosen to use a bolt gun to dispatch the captured deer.

Implementation of the other strategies is not expected to measurably alter the ambient noise levels although use of either the sharp shooting or certified hunt may increase local noise levels for a limited period of time as fire arms are discharged.

Impacts of the No Action: There would be no impact to current noise levels in residential neighborhoods.

2. Risk/Health Hazards

Impacts of the Proposed Action: No direct impacts are expected.

Indirect impacts of the Proposed Action: If FWP approves the proposed action, the trained Helena police staff would continue to use a bolt gun to dispatch captured deer. This method was chosen because it minimizes the risk to the public and is a humane way to dispatch the animal. Furthermore, the use of a bolt gun to euthanize the animal ensures the meat is still useable for human consumption.

There is a minor risk of personal injury to those officers engaged in the culling of deer. Following the completion of Phase I using the capture and dispatch method, the City reported that minor injuries were incurred by their staff such as minor cuts and tick bites. Further, officers were exposed to capturing bucks with antlers which required careful handling when collapsing the Clover trap. From those experiences, Phase II's capture period was during the winter when there were no antlered animals and staff was more knowledgeable on handling the captured animals and trap equipment without injuries.

Although the other recommended strategies identified in the City Plan are not currently being used, some could pose a risk to public safety such as professional removal and the certified public hunting strategies. Discharge of firearms within urban settings is inherently dangerous. However, the City's Plan does call for both strategies to be implemented by certified and trained individuals so that hazards would be kept to a minimum. Areas would be identified where professional removal and/or certified public hunting could be implemented safely, and where those options cannot be conducted safely other strategies might be implemented.

Potential hazards to the public by use of aversive conditioning and fertility/sterilization strategies are expected to be minimal but actual safety levels are unknown at this time.

Impacts of the No Action: No new public safety issues would be established. However, the continuance of a high and potentially growing deer population within the city limits would maintain the potential for deer-human conflicts and human health and safety issues.

3. Community Impacts

Impacts of the Proposed Action: If FWP approves the continuation of the City's Urban Deer Management Plan, it is expected that a continuing, moderate level of public controversy and comment would be generated and be directed to FWP, the City of Helena staff, and the City Police Department.

As with previous phases, the public would have an opportunity to comment on the City's request through the submission of feedback during the public comment period provided for with this environmental assessment and at FWP's Commission meeting in November.

The indirect impacts of the FWP decision may result in similar management and control proposals from other cities such as Billings, Bozeman, Great Falls, and Missoula.

The meat generated from the implementation of the City's plan would be available to community food banks for distribution to low-income families.

Impacts of the No Action: If FWP does not approve the continuation of the deer reduction plan, the issue would continue to remain a relevant topic of discussion and controversy among the residents, City officials, and FWP management because of increasing conflicts between humans and deer. The City would likely approach FWP again seeking approval of future urban deer population reduction programs when issues of public health and safety arise.

4. Aesthetics/Recreation

Impact of Proposed Action: No impacts would occur to the overall aesthetic values found within the City since ongoing culling efforts would take place during fall and winter in secluded spots or on private property.

Until the City decides to implement a different reduction strategy, the capture and dispatch process would continue to be used. Since the ground would likely be frozen when the traps are placed, the City would attempt to reduce the appearance and remnants of the blood at the trapping sites either by washing

the areas with water or by other means to restore aesthetic values. Additionally, carcasses are transported in a covered vehicle and not in public view.

At this time it is not known if or how aesthetic values might be influenced by the implementation of the other strategies (aversive conditioning, fertility/sterilization, professional wildlife removal using bait sites and stationary marksmen or certified public hunting). It is anticipated that sites would be cleaned, as with trapping and dispatch, if professional wildlife removal or certified public hunting were used. Aversive conditioning may potentially result in errant paint balls which could necessitate a site cleaning process as well.

Some argue that the presence of deer in the City provides an aesthetic value, so reduction of deer numbers does have a potential aesthetic impact. However with a target density of 25 deer/mi², the opportunity to view deer in the city would remain.

No Action Alternative: No recreational resources would be affected by this choice. The expected increasing urban deer population would continue to degrade private landscaping and their growing presence within the city limits would likely continue to contribute to additional human-deer conflicts.

VIII. RESOURCE ISSUES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

The Montana Environmental Policy Act (MEPA) provides for the identification and elimination from detailed study of issues which are not significant or which have been covered by a prior environmental review, narrowing the discussion of these issues to a brief presentation of why they would not have a significant effect on the physical or human environment or providing a reference to their coverage elsewhere (ARM 12.2.434(d)). While these resources are important, they were either unaffected or mildly affected by the proposed action or the affects could be adequately mitigated.

1. Air Resources

Impacts of the Proposed Action: No impacts would occur to the ambient air quality of the City of Helena. No nuisance odors would be generated by the continuation of the implementation of the City's Urban Deer Management Plan.

Impacts of the No Action: The normal air quality would remain the same.

2. Water Resources

Impacts of the Proposed Action: No impacts would occur to local resources since there are no streams, creeks, or lakes within the City limits. Contamination of water resources is improbable since it is expected the ground would be frozen during the continued initiation of the City's plan.

Impacts of the No Action: No changes to the existing water resources for the City of Helena would occur.

3. Land Use

Impact of Proposed Action and No Action Alternative: There would be no impact to the productivity or profitability of the private property, nor does the continuation of the Urban Deer Management Plan conflict with existing land uses within the city limits.

4. Public Services/Taxes/Utilities

Impact of Proposed Action and No Action Alternative: There would be no effect on local or state tax bases or revenues, no alterations of existing utility systems nor tax bases of revenues, nor increased uses of energy sources.

5. Cultural/Historic Resources

Impact of Proposed Action and No Action Alternative: No impacts would occur to any cultural or historical sites within the city limits since the action poses little chance for ground disturbing activities during the late fall or winter when the ground would most likely be frozen and/or covered with snow or dead leaves.

XI. SUMMARY EVALUATION OF SIGNIFICANCE

The proposed action should have no negative cumulative effect on either physical or human environment. However when considered on a larger scale, there is the potential that other cities in Montana will ask for FWP approval of their own wildlife management plans which could increase the number of consultations FWP wildlife biologists and wardens would be expected to incorporate into an already busy workload. Additionally as these types of plans begin to emerge, it is probable that the level of public comment and controversy would rise as well. If planned and executed properly, a municipality's urban wildlife reduction plan would reduce damage to public and private property in addition to the reduction of wildlife-human conflicts that require local police and game warden intervention. A working model would help streamline the preparation, review, and implementation of other proposals that arise in the future.

Although the No Action alternative would maintain or increase the deer population in the City of Helena, it would not address the existing conflicts between the needs of the deer and the public safety expectations of the residents of Helena.

X. EVALUATION OF NEED FOR AN EIS

Based on the above assessment that has not identified any significant negative impacts to the human environment from the proposed action, an EIS is not required and an EA is the appropriate level of review.

XI. PUBLIC INVOLVEMENT

As previously noted in Section VII (3), the City of Helena has provided a variety of avenues for the public to participate in the development of their Urban Deer Reduction Plan. Additionally, the public was given the opportunity to support or oppose the FWP Commission's approval for the implementation of Phases I and II of the City's Urban Deer Management Plan at meetings in the fall of 2007 and winter of 2009 in addition to the opportunity for written comments for the previous two environmental assessments on the pilot phases.

The public will be formally notified of the EA's availability and comment period in the following venues:

- Two public notices in the *Helena Independent Record*
- One local press release, and
- Public notice on the Fish, Wildlife & Parks web page: <http://fwp.mt.gov>.

Copies of this environmental assessment will be distributed to the standard distribution list and those previously expressing interest in this issue. If requested, FWP will hold a public meeting on the proposal.

The public comment period will extend for (30) thirty days and written comments will be accepted until 5:00 p.m., October 9, 2009. The public can submit written comments to FWP to either addressed listed below:

City of Helena Urban Deer Management Plan
Montana Fish, Wildlife & Parks
PO Box 200701
Helena, MT 59620-0701

Or email comments to: urbandeer@mt.gov

XII. DOCUMENTS REFERENCED

City of Helena Deer Reduction Plan, Environmental Assessment (May 2008) and Decision Notice (July 2008) http://fwp.mt.gov/publicnotices/notice_1731.aspx and http://fwp.mt.gov/publicnotices/notice_1821.aspx

City of Helena Deer Reduction Plan, Environmental Assessment – Phase II (May 2008) and Decision Notice (January 2009) http://fwp.mt.gov/publicnotices/notice_1960.aspx

Michigan Department of Natural Resources. (December 2000). *Managing White-tailed Deer in Michigan: Capture and Translocation as a Means of Population Control*. Wildlife Issue Review Paper 9.

Montana Fish, Wildlife & Parks. (September 2004). *Findings and Recommendations of the Urban Wildlife Working Group*. Helena

City of Helena. (April 2007). *Urban Deer Management Plan, Findings and Recommendations of the Helena Urban Wildlife Task Force*. Helena <http://www.ci.helena.mt.us>

XIII. PERSONS RESPONSIBLE FOR PREPARING THIS EA

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